

IN THE CLAIMS

1        1.        (currently amended) An imprint template for imprint lithography that  
2        comprises:

3                alignment marks embedded in an embedding material included in bulk  
4        material of the imprint template, wherein the embedding material surrounds the  
5        alignment marks.

1        2.        (original) The imprint template of claim 1 wherein one or more of the  
2        alignment marks are spaced one or more predetermined distances from a surface of  
3        the imprint template.

1        3.        (original) The imprint template of claim 1 wherein the one or more  
2        predetermined distances is sufficient to enable predetermined radiation to irradiate  
3        predetermined regions disposed under a surface of the imprint template.

1        4.        (currently amended) The imprint template of claim 1 wherein the alignment  
2        marks are fabricated from a material whose index of refraction is different from that  
3        of at least the ~~bulk~~ embedding material of the imprint template surrounding the  
4        ~~alignment marks.~~

1        5.        (currently amended) The imprint template of claim 1 wherein the alignment  
2        marks are fabricated from a material whose index of refraction is different from that  
3        of at least the ~~bulk~~ embedding material ~~of the imprint template surrounding the~~  
4        ~~alignment marks~~ and that of a material into which an imprint is made.

1        6.        (original) The imprint template of claim 1 wherein the alignment marks are  
2        metal.

1        7.        (currently amended) The imprint template of claim 1 wherein a material  
2        disposed between the alignments marks and a surface of the imprint template is the  
3        same material as the embedding material and is the same material used to form other  
4        portions of the bulk material of the imprint template.

1        8.        (original) The imprint template of claim 1 wherein the surface of the imprint  
2        template includes a release layer.

1        9.        (original) The imprint template of claim 8 wherein the release layer is a  
2        fluorocarbon release layer.

1        10.       (original) The imprint template of claim 8 wherein the release layer is a  
2        covalently bonded, thin, fluorocarbon film.

1 11. (currently amended) An imprint template for imprint lithography that  
2 comprises:

3 alignment marks embedded in an embedding material included in bulk  
4 material of the imprint template, wherein said embedding material surrounds said  
5 alignment marks, with said bulk material being transparent to radiation having a  
6 predetermined wavelength and said alignment marks being ~~are~~ spaced one or more  
7 predetermined distances from a surface of the imprint template.

1 12. (original) The imprint template of claim 11 wherein the one or more  
2 predetermined distances is sufficient to enable said radiation to irradiate  
3 predetermined regions in superimposition with the imprint template.

1 13. (currently amended) The imprint template of claim 12 wherein the alignment  
2 marks are fabricated from a material whose index of refraction is different from that  
3 of at least the ~~bulk embedding material of the imprint template surrounding the~~  
4 ~~alignment marks~~.

1 14. (original) The imprint template of claim 13 wherein the index of refraction of  
2 the material differs from an index of refraction a layer into which an imprint is made.

1 15. (original) The imprint template of claim 14 wherein the alignment marks are  
2 metal.

1 16. (original) The imprint template of claim 15 wherein the surface of the imprint  
2 template includes a release layer.

1 17. (original) The imprint template of claim 16 wherein the release layer is a  
2 fluorocarbon release layer.

1 18. (original) The imprint template of claim 16 wherein the release layer is a  
2 covalently bonded, thin, fluorocarbon film.

1 19. (currently amended) A method for fabricating an imprint template for imprint  
2 lithography that comprises steps of: depositing a mask on an imprint template;  
3 etching alignment features through the mask into the imprint template;  
4 depositing alignment marks into the alignment features;  
5 ~~depositing a material over~~ covering the alignment marks with a same material  
6 used to fabricate the imprint template; and  
7 removing the mask.

1 20. (currently amended) The method of claim ~~12~~ 19 which further comprises  
2 treating the surface of the imprint template.